

# Economic Impact Analysis: Black Hills Energy



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# Section 1

## Building the Model

### Input Data

Our model for Black Hills Energy in Colorado was constructed using the following information:

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<u>Event: Impact Output in Pueblo, Colorado</u>		
<i>Title:</i>	<i>Black Hills Energy</i>	
<i>Type:</i>	<i>Industry Output</i>	<i>(Output Type)</i>
<i>Specification:</i>	<i>IMPLAN Code 52</i>	<i>(Construction of new power and communication structures)</i>
<i>Value:</i>	<i>\$24,000,000</i>	<i>(Output)</i>
<i>Value 2:</i>	<i>30.00</i>	<i>(Employment)</i>
<i>Dollar Year:</i>	<i>2020</i>	<i>Data Year: 2018</i>
<i>Location:</i>	<i>Colorado</i>	

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### Industry

NAICS codes are constructed using a XX-YY-ZQ format. The two leading digits (XX) identify the industry sector, the middle digits (YY) specify a category within that industry, and the trailing digits (ZQ) are used for sub-categories; Z is a broad, industry-specific description and Q is uniquely defined. This is known as the *Six Digit NAICS Code*.

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<b>IMPLAN Bridge: Corresponding NAICS Industry Codes for IMPLAN Sector 52</b>			
<b>NAICS Code</b>		<b>Industry Title</b>	
<b>Sector</b>	<b>Category</b>	<b>Sub-Cat.</b>	<a href="https://www.naics.com/six-digit-naics/?code=23">https://www.naics.com/six-digit-naics/?code=23</a>
<b>23</b>			<b>Construction</b>
	2371		Utility System Construction
		237110	<i>Water and Sewer Line and Related Structures Construction</i>
		237120	<i>Oil and Gas Pipeline and Related Structures Construction</i>
		237130	<i>Power and Communication Line and Related Structures Construction</i>

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### Concept

Our model represents the economic impact of the construction of new power lines in Colorado. The output data illustrates the effects of this event **with 30 employees**.

# Economic Impact Output

## Section 1

### Analysis Output Summary

The output data from our IMPLAN: Economic Impact Analysis for Black Hills Energy is as follows:

With 30.00 employees assigned to the industry of Construction of new power and communication structures, the event has a direct impact output value of \$24,000,000.00 and results in 40.34 indirect employment opportunities (\$8,574,783.90 of indirect impact output) and 62.84 induced employment opportunities (\$10,113,632.65 of induced impact output), for a total of 133.18 employment opportunities and a total impact output of \$42,688,416.55 in the area.

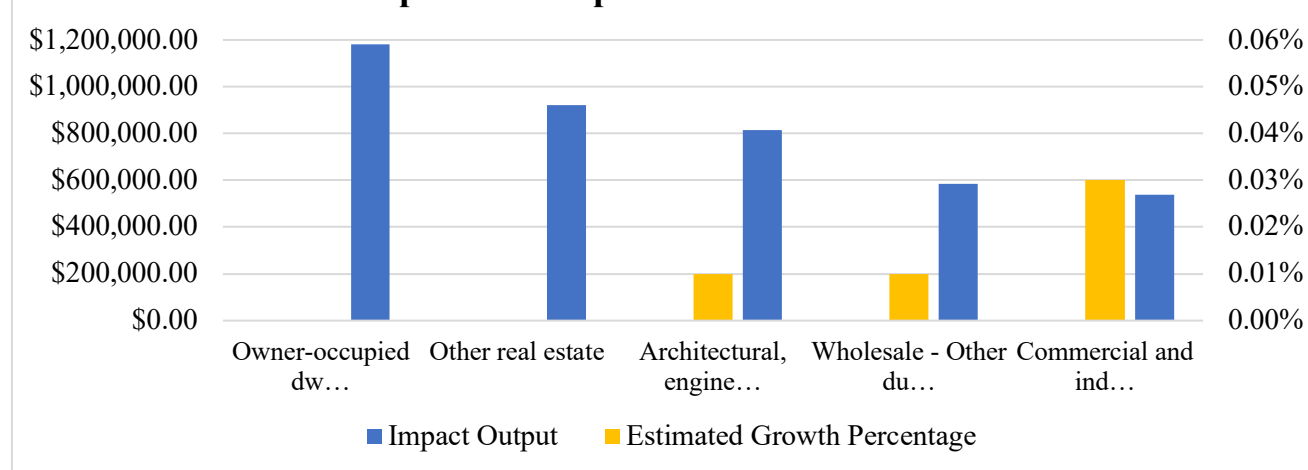
### Economic Indicators by Impact

Impact	Employment	Labor Income	Value Added	Output
Direct	30.00	\$8,570,051.94	\$14,709,758.03	\$24,000,000.00
Indirect	40.34	\$2,768,348.52	\$4,570,751.06	\$8,574,783.90
Induced	62.84	\$3,224,610.61	\$5,860,901.49	\$10,113,632.65
<b>Total</b>	<b>133.18</b>	<b>\$14,563,011.07</b>	<b>\$25,141,410.57</b>	<b>\$42,688,416.55</b>

### Top 5 Most Impacted Other Industries Ranked by Impact Output

Rank	Industry	Impact Output	Estimated Growth
#1	449 - Owner-occupied dw...	\$1,180,789.95	0.00%
#2	447 - Other real estate	\$921,051.64	0.00%
#3	457 - Architectural, engine...	\$815,811.77	0.01%
#4	396 - Wholesale - Other du...	\$584,892.49	0.01%
#5	453 - Commercial and ind...	\$538,230.24	0.03%

### Top 5 Most Impacted Other Industries



# Economic Impact Output

## Section 1

### Top 5 Most Impacted Other Industries Ranked by Estimated Growth (%)

Rk	Industry	Output Rk.	Impact Output	Est. Growth
#1	235 - Prefabricated meta...	#42	\$119,351.56	0.12%
#2	248 - Turned product an...	#74	\$61,616.98	0.04%
#3	198 - Brick, tile, and oth...	#86	\$51,722.06	0.03%
#4	204 - Ready-mix concre...	#12	\$329,900.27	0.03%
#5	28 - Stone mining and...	#84	\$54,327.19	0.03%

### Top 5 Most Impacted Industries Ranked by Employment

Rk	Industry	Impact: Employment		
		Indirect	Induced	Total
#1	52 - Construction of new...	0.00	0.00	30.00*
#2	447 - Other real estate	2.45	2.36	4.81
#3	509 - Full-service rest...	0.46	3.58	4.04
#4	405 - Retail - Building...	3.39	0.33	3.71
#5	457 - Architectural, engine...	3.53	0.14	3.68

\*Total for 52 - Construction of new power and communication structures includes Direct Employment

### Top 5 Most Impacted Industries Ranked by Total Value Added

Rk	Industry	Impact: Value Added		
		Indirect	Induced	Total
#1	52 - Construction of new...	\$0.00	\$0.00	\$14,709,758.03*
#2	449 - Owner-occupied dw...	\$0.00	\$934,547.61	\$934,547.61
#3	457 - Architectural, engine...	\$486,690.90	\$19,932.87	\$506,623.78
#4	447 - Other real estate	\$181,251.99	\$173,959.75	\$355,211.74
#5	453 - Commercial and ind...	\$306,569.79	\$12,305.80	\$318,875.59

\*Total for 52 - Construction of new power and communication structures includes Direct Value Added

### Estimated Tax Impact

Impact	Direct	Indirect	Induced	Total
Sub County General	\$52,915.94	\$82,526.57	\$110,333.76	\$245,776.27
Sub County Special Districts	\$79,178.08	\$121,930.71	\$162,946.50	\$364,055.29
County	\$29,060.42	\$44,473.86	\$59,420.79	\$132,955.07
State	\$308,522.57	\$180,648.72	\$231,089.59	\$720,260.88
Federal	\$1,722,198.14	\$599,012.24	\$712,918.18	\$3,034,128.57
<i>Total</i>	<i>\$2,191,875.15</i>	<i>\$1,028,592.11</i>	<i>\$1,276,708.83</i>	<i>\$4,497,176.08</i>

## Section 2 Building the Model

### Input Data

Our model for Black Hills Energy in Colorado was constructed using the following information:

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<u>Event: Impact Output in Pueblo, Colorado</u>		
<i>Title:</i>	<i>Black Hills Energy</i>	
<i>Type:</i>	<i>Industry Output</i>	<i>(Output Type)</i>
<i>Specification:</i>	<i>IMPLAN Code 52</i>	<i>Construction of new power and communication structures</i>
<i>Value:</i>	<i>\$24,000,000</i>	<i>(Output)</i>
<i>Value 2:</i>	<i>40.00</i>	<i>(Employment)</i>
<i>Dollar Year:</i>	<i>2020</i>	<i>Data Year: 2018</i>
<i>Location:</i>	<i>Colorado</i>	

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### Industry

NAICS codes are constructed using a XX-YY-ZQ format. The two leading digits (XX) identify the industry sector, the middle digits (YY) specify a category within that industry, and the trailing digits (ZQ) are used for sub-categories; Z is a broad, industry-specific description and Q is uniquely defined. This is known as the *Six Digit NAICS Code*.

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#### IMPLAN Bridge: Corresponding NAICS Industry Codes for IMPLAN Sector 52

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NAICS Code		Industry Title
Sector	Category	Sub-Cat.
<b>23</b>		<b>Construction</b>
	2371	Utility System Construction
		<i>237110 Water and Sewer Line and Related Structures Construction</i>
		<i>237120 Oil and Gas Pipeline and Related Structures Construction</i>
		<i>237130 Power and Communication Line and Related Structures Construction</i>

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### Concept

Our model represents the economic impact of the construction of new power lines in Colorado. The output data illustrates the effects of this event **with 40 employees**.

# Economic Impact Output

## Section 2

### Analysis Output Summary

The output data from our IMPLAN: Economic Impact Analysis for Black Hills Energy is as follows:

With 40.00 employees assigned to the industry of Construction of new power and communication structures, the event has a direct impact output value of \$24,000,000.00 and results in 40.34 indirect employment opportunities (\$8,574,783.90 of indirect impact output) and 62.84 induced employment opportunities (\$10,113,632.65 of induced impact output), for a total of 143.18 employment opportunities and a total impact output of \$42,688,416.55 in the area.

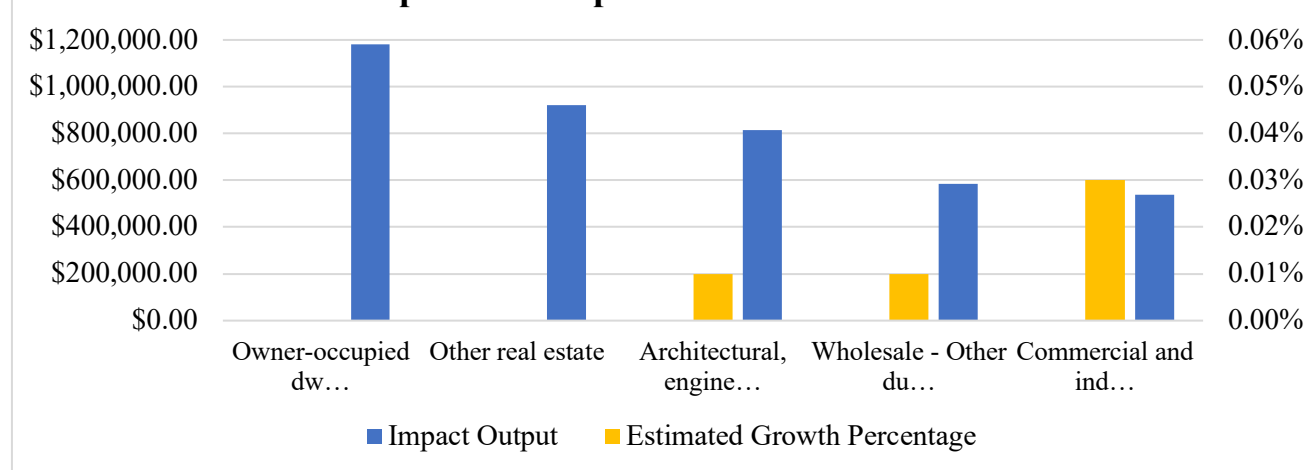
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<b>Total</b>	<b>143.18</b>	<b>\$14,563,011.07</b>	<b>\$25,141,410.57</b>	<b>\$42,688,416.55</b>

### Top 5 Most Impacted Other Industries Ranked by Impact Output

Rank	Industry	Impact Output	Estimated Growth
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### Top 5 Most Impacted Other Industries



# Economic Impact Output

## Section 2

### Top 5 Most Impacted Other Industries Ranked by Estimated Growth (%)

Rk	Industry	Output Rk.	Impact Output	Est. Growth
#1	235 - Prefabricated meta...	#42	\$119,351.56	0.12%
#2	248 - Turned product an...	#74	\$61,616.98	0.04%
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### Top 5 Most Impacted Industries Ranked by Employment

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\*Total for 52 - Construction of new power and communication structures includes Direct Employment

### Top 5 Most Impacted Industries Ranked by Total Value Added

Rk	Industry	Impact: Value Added		
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## **Appendix**

### **Economic Indicators by Impact**

#### **Direct Effects**

“It is one or more production changes or expenditures made by producers/consumers as a result of an activity or policy”  
(<https://implanhelp.zendesk.com/hc/en-us/articles/115009668548-Direct-Effects>).

#### **Indirect Effects**

“Economic Effects stemming from business to business purchases in the supply chain”  
(<https://implanhelp.zendesk.com/hc/en-us/articles/115009499547-Indirect-Effects>).

#### **Induced**

“Economic Effects stemming from household spending of Labor Income, after removal of taxes, savings, and commuter income”  
(<https://implanhelp.zendesk.com/hc/en-us/articles/115009668568-Induced-Effects>).

#### **Employment**

“Employment in IMPLAN is an Industry-specific mix of full-time, part-time, and seasonal employment. It is an annual average that accounts for seasonality and follows the same definition used by the BLS and BEA. IMPLAN Employment is not equal to full time equivalents. Includes wage and salary employment and proprietors”  
(<https://implanhelp.zendesk.com/hc/en-us/articles/115009668668-Employment>).

#### **Labor Income**

“All forms of Employment income, including Employee Compensation (wages, salaries, and benefits) and Proprietor Income”  
(<https://implanhelp.zendesk.com/hc/en-us/articles/115009668468-Labor-Income>).

#### **Value Added**

“The difference between an Industry's or establishment's total Output and the cost of its Intermediate Inputs; it is a measure of the contribution to GDP”  
(<https://implanhelp.zendesk.com/hc/en-us/articles/115009498847-Value-Added>).

#### **Output**

“For all Industries, output equals the value of Industry production, which is equal to sales plus net inventory change”  
(<https://implanhelp.zendesk.com/hc/en-us/articles/115009668388-Output>).

For more information you may visit:

<https://implanhelp.zendesk.com/hc/en-us/sections/115002653168-Glossary>  
“Glossary.” *Glossary – IMPLAN Group*, [implanhelp.zendesk.com/hc/en-us/sections/115002653168-Glossary](https://implanhelp.zendesk.com/hc/en-us/sections/115002653168-Glossary).

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## **Appendix NAICS Codes**

Below are industry names with corresponding NAICS codes that were identified in this report:

- 28 - Stone mining and quarrying
- 52 - Construction of new power and communication structures
- 198 - Brick, tile, and other structural clay product manufacturing
- 204 - Ready-mix concrete manufacturing
- 235 - Prefabricated metal buildings and components manufacturing
- 248 - Turned product and screw, nut, and bolt manufacturing
- 396 - Wholesale - Other durable goods merchant
- 405 - Retail - Building material and garden equipment and supplies stores
- 447 - Other real estate
- 449 - Owner-occupied dwellings
- 453 - Commercial and industrial machinery and equipment
- 457 - Architectural, engineering, and related services
- 509 - Full-service restaurants